



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/799,913 | 03/12/2004 | Donald G. Newberg | CM06187H | 8294 |

22917 7590 02/05/2007
MOTOROLA, INC.
1303 EAST ALGONQUIN ROAD
IL01/3RD
SCHAUMBURG, IL 60196

| |
|----------|
| EXAMINER |
|----------|

RYMAN, DANIEL J

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2616

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS | 02/05/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/799,913

Applicant(s)

NEWBERG ET AL.

Examiner

Daniel J. Ryman

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,9,10 and 13-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-22 is/are allowed.
- 6) ☒ Claim(s) 1-5,9,10,23 and 24 is/are rejected.
- 7) ☒ Claim(s) 13,15 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. In light of the Interview conducted on 1/25/2007, the finality of the previous action is withdrawn.
2. The indicated allowability of claims 1-5, 9, 10, and 23 is withdrawn in view of the new grounds of rejection under 35 U.S.C. § 101. This rejection follows.

Claim Objections

3. Claims 13, 15, and 17 are objected to because of the following informalities: in line 3 of each claim, “comprising payload” should be “comprising a payload”. Appropriate correction is required.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1-5, 9, 10, 23, and 24 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter since the claims are directed to a signal per se. A signal per se is non-statutory since it does not fall within any of the categories of patentable subject matter set forth in 35 U.S.C. § 101 (process, machine, composition of matter, and manufacture). A claimed signal is not a “process” since it does not have a series of steps. Also, a claimed signal is not a “machine” since it has no physical structure and does not itself perform any useful, concrete, and tangible result. Further, a claimed signal is not a “composition of matter” since it is not matter, but a form of energy. Finally, a claimed signal is not a “manufacture” since it does not have physical substance, where the Supreme Court has read the

Art Unit: 2616

term “manufacture” in accordance with its dictionary definition to implicitly require physical substance: “the production of articles for use from raw or prepared materials by giving to these materials new forms, qualities, properties, or combinations, whether by hand-labor or by machinery.” *Diamond v. Chakrabarty*, 447 U.S. 303, 308, 206 USPQ 193, 196-97 (1980) (quoting *American Fruit Growers, Inc. v. Brogdex Co.*, 283 U.S. 1, 11, 8 USPQ 131, 133 (1931), which, in turn, quotes the Century Dictionary). In order to be statutory, the signal needs to be claimed in conjunction with otherwise statutory subject matter, e.g. claiming the signal in conjunction with an otherwise statutory method claim.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (USPN 6,714,557), of record, in view of Oliver (USPN 6,292,484), of record, in further view of Cantoni et al. (USPN RE37,494), of record.

8. Regarding claim 24, Smith discloses in a wireless communication system with an air interface comprising a plurality of bursts (col. 1, lines 31-33), a method comprising the step of defining a plurality of bursts, wherein each burst (time slot) comprises a field (overhead) embedded within the burst (col. 2, lines 52-col. 3, line 13); and wherein the field is one taken from the group of a synchronization field (preamble) and a signaling field (other fields in overhead) (col. 2, lines 52-col. 3, line 13) wherein the claim only requires that each burst have at

Art Unit: 2616

least one field and that this one field be a synchronization field or a signaling field such that the “field” in one burst need only be a preamble *or* a signaling field; and wherein, when the field is a synchronization field, defining a position of at least one subsequent burst comprising the signaling field (col. 5, lines 16-21);

Smith does not expressly disclose that, when the field is a synchronization field, defining a position of at least one subsequent burst comprising the synchronization field; however, Smith does disclose that the synchronization field can be eliminated for a predetermined number of slots (col. 4, line 48-col. 5, line 7). Oliver teaches, in a TDMA communication system, using an offset to indicate the position of a subsequent embedded field (col. 3, lines 40-62) in order to allow the receiver to correctly ascertain the positions of fields in the data stream (col. 4, lines 22-30). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to define a position of at least one subsequent burst comprising the synchronization field in order to allow the receiver to correctly ascertain the position of the synchronization field when the synchronization field has been eliminated for a predetermined number of slots.

Smith in view of Oliver does not expressly disclose that, when the field is a signaling field, defining an indicator in a framing portion of the signaling field to identify that payload in the burst is taken from a group of (a) begins a new packet, (b) completes a packet, and (c) does not begin or complete a packet. Cantoni discloses, in a TDMA communication system, defining an indicator to identify that payload in the burst is taken from a group of (a) begins a new packet, (b) completes a packet, or (c) does not begin or complete a packet (col. 3, lines 65-66 and col. 4, line 59-col. 5, line 9) in order to allow a packet that is larger than the size of the time slot to be transmitted and correctly received (col. 1, lines 53-60 and col. 2, lines 40-50). Thus, it would

Art Unit: 2616

have been obvious to one of ordinary skill in the art at the time of the invention to define, when the field is a signaling field, an indicator in a framing portion of the signaling field to identify that payload in the burst is taken from a group of (a) begins a new packet, (b) completes a packet, and (c) does not begin or complete a packet in order to allow a packet that is larger than the size of the time slot to be transmitted and correctly received, where the information is "framing information" such that it is in a "framing portion of the signaling field."

Allowable Subject Matter

9. Claims 13-22 are allowed. The prior art does not disclose or fairly suggest signaling a mode for the system using a unique synchronization pattern.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Ryman whose telephone number is (571)272-3152. The examiner can normally be reached on Mon.-Fri. 8:00am-4:30pm.

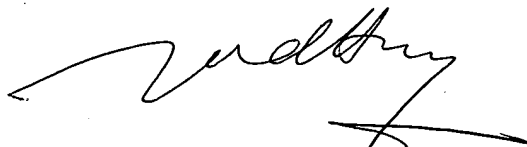
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Daniel J. Ryman
Examiner
Art Unit 2616

DJR


HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600